

**BEST AVAILABLE COPY**

Common UBM (under bump metallurgy) Systems

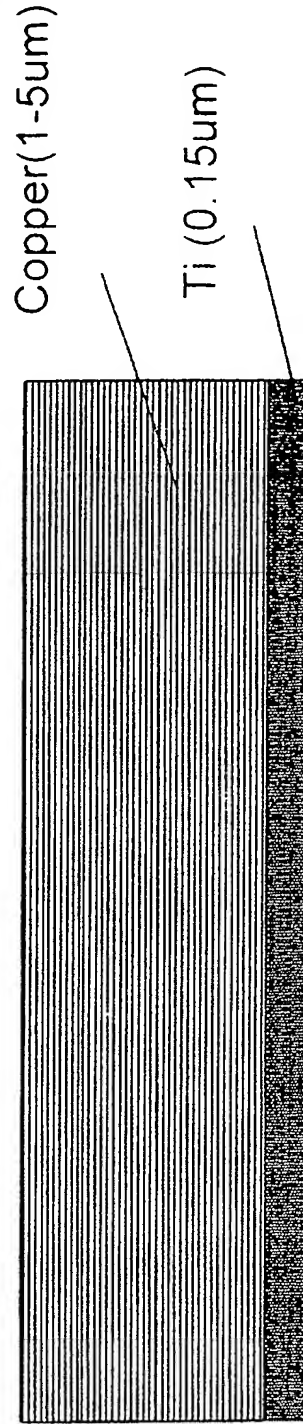
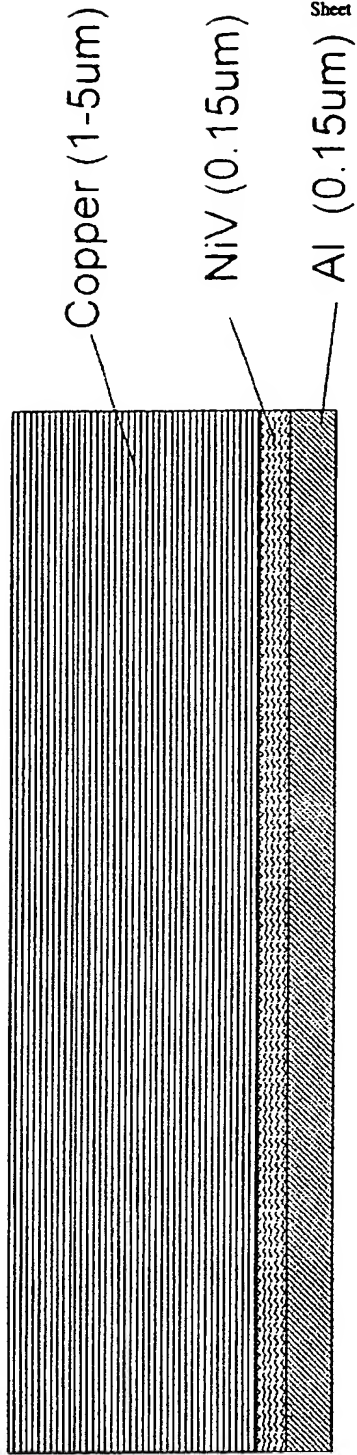


FIG 1C

FIG. 2. UBM Layer Covering Standard Top Metal Layer

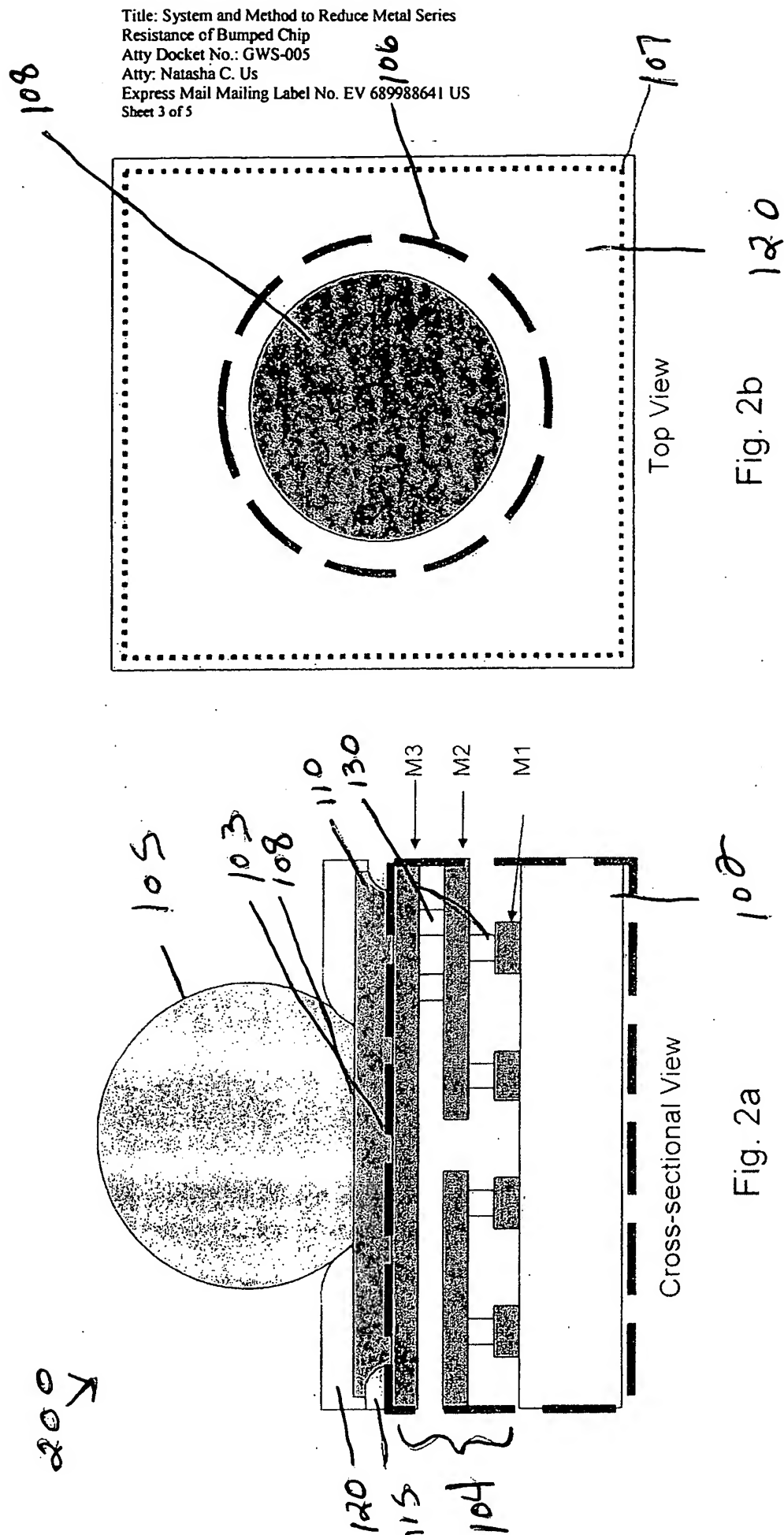


FIG 3. UBM Layer Covering Thinner Top Metal Layer

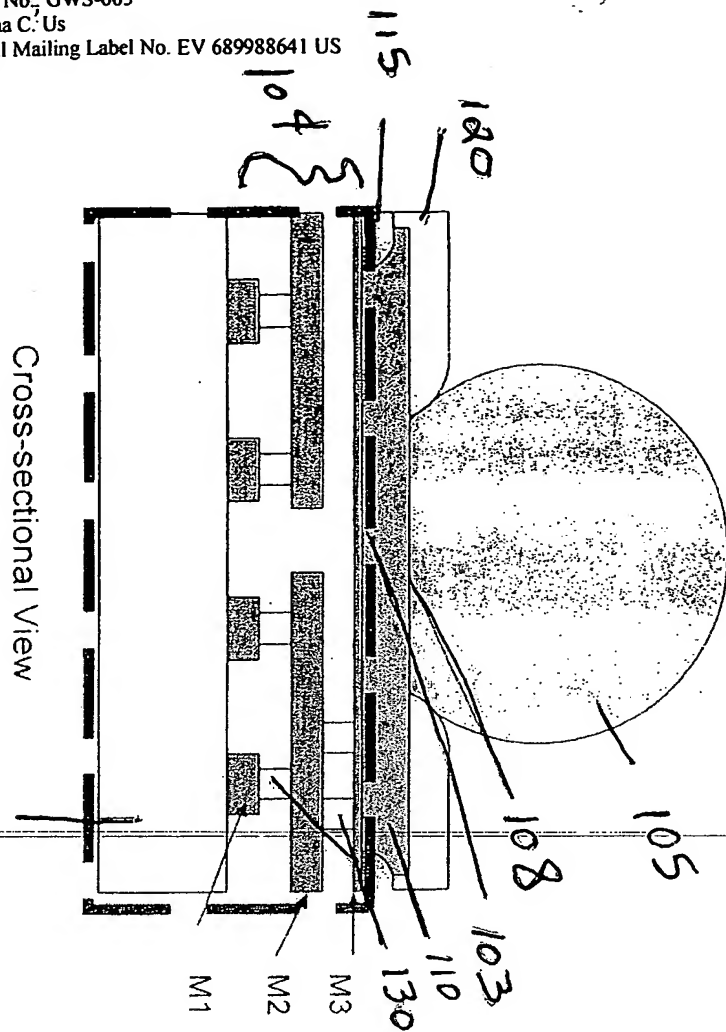


Fig. 3a

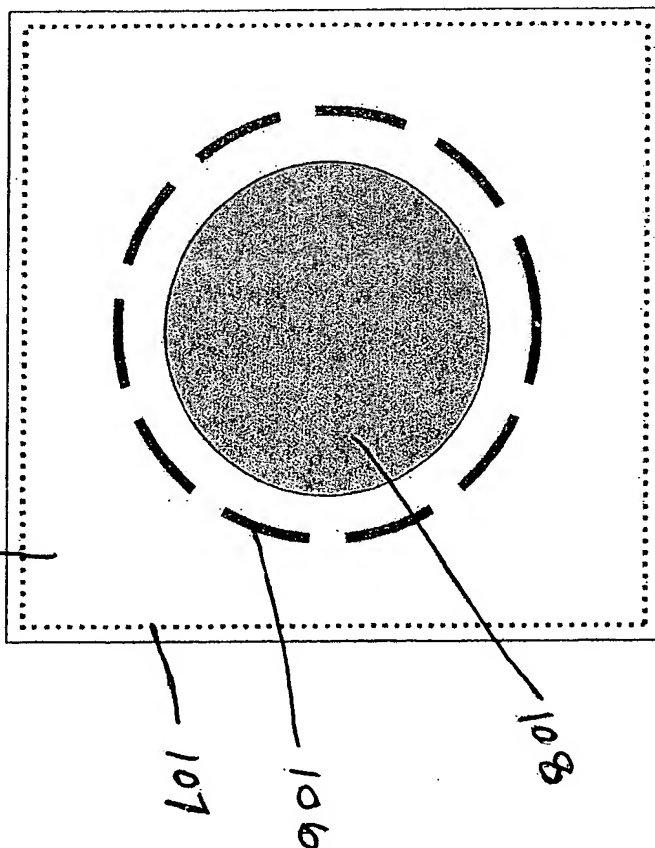


Fig. 3b

200  
K

FIG 4. UBM Layer Replacing Top Metal Layer

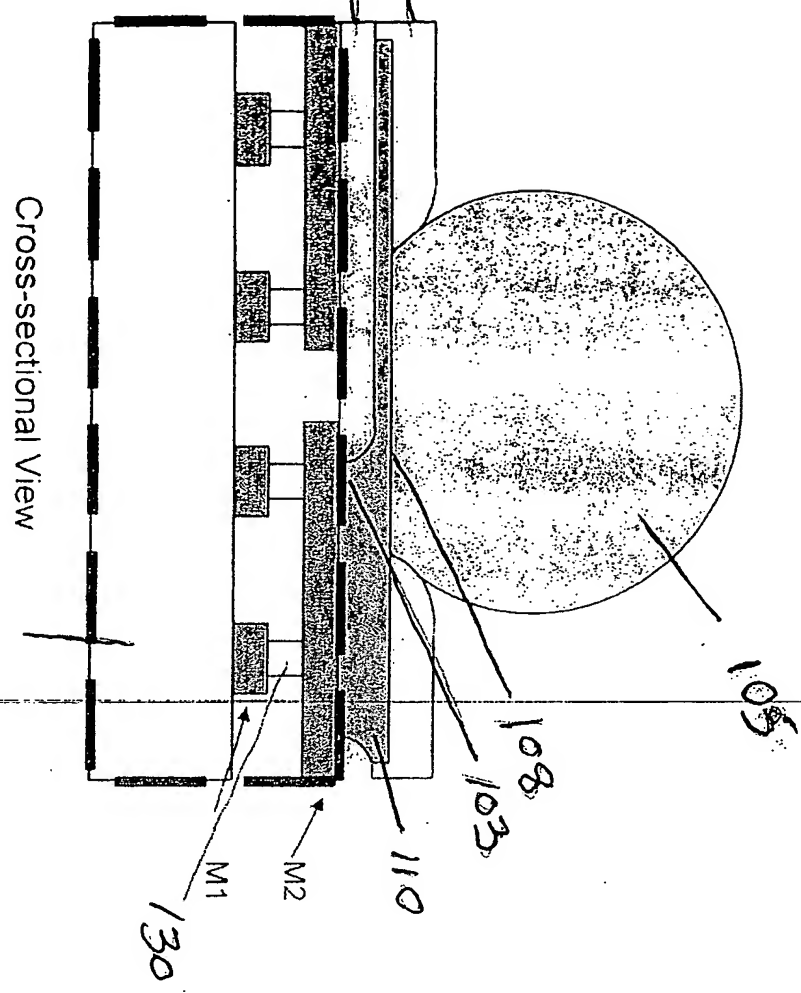


FIG. 4A

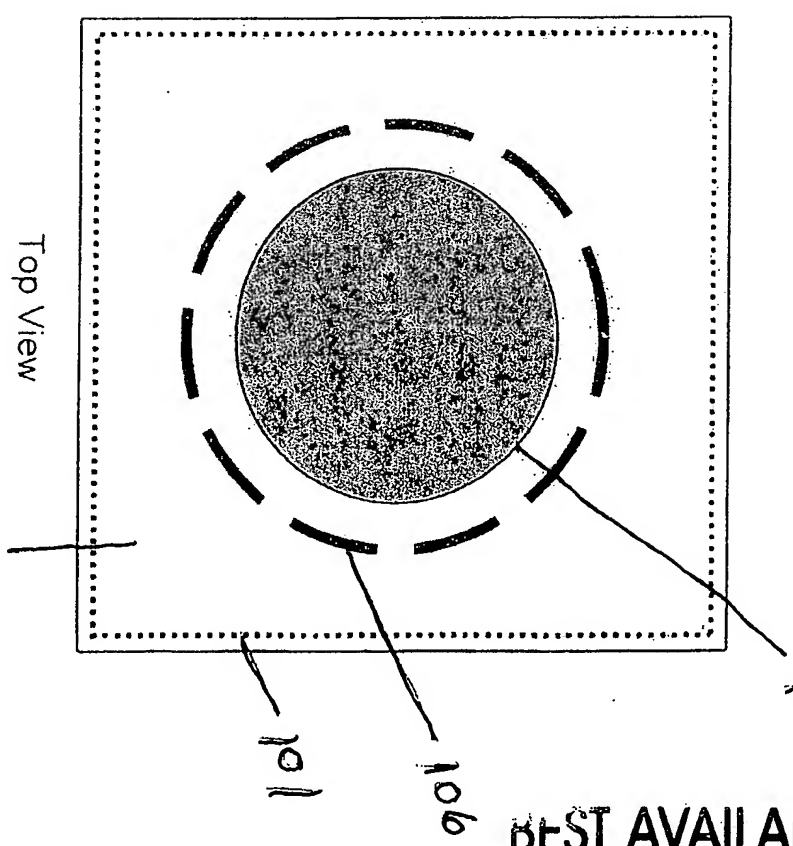


FIG. 4B